REMARKS

Applicants have carefully reviewed the Office Action mailed March 16, 2007, prior to preparing this response. Currently claims 1-21 are pending in the application, wherein claims 1-7 and 9-21 have been rejected and claim 8 has been withdrawn from consideration. Favorable consideration of the following remarks is respectfully requested.

Claims 1-7, 9-10, 14-15, 18 and 21 stand rejected under 35 U.S.C. §102(e) as being anticipated by Furnish, U.S. Patent No. 6,873,868. Applicants respectfully traverse this rejection because Furnish fails to teach each claim limitation.

In particular, independent claim 1 recites "removable support means for providing column support to the elongate shaft." In examining claim limitations evoking a mean-plus-function evaluation, a two-step process must be conducted. First, the element found in the prior art must perform the same function specified in the claim. Second, the structure of the prior art element must be found to perform the function in substantially the same way while producing substantially the same results as the corresponding element disclosed in the specification. See M.P.E.P. §§2181-2184.

In the Office Action, it appears that signal fiber 130 is being equated to the removable support means of claim 1. In view of the requirements of showing equivalence of a means-plus-function limitation, Applicants respectfully disagree with this suggestion of equivalence. In order to show equivalence, it must first be demonstrated that the signal fiber 130 of Furnish performs the same function as the claimed limitation. Applicants respectfully assert that the signal fiber of Furnish does not meet the functional requirements of a "removable support means for providing column support to the elongate shaft."

Signal fiber 130 of Furnish is disclosed as a signal fiber for delivering or receiving beams of light energy. Furnish at column 10, lines 9-11. At no point does Furnish suggest that signal fiber 130 performs the function of a removable support means for providing column support to the elongate shaft. The mere addition of material does not imply that column support is increased. For example, the mass of the shaft may remove or overshadow any stiffness that the signal fiber may provide to the catheter.

Moreover, the signal fiber of Furnish is not an equivalent structure which performs the function in substantially the same way while producing substantially the same results as the corresponding element disclosed in Applicants' specification. The signal fiber of Furnish, to the

extent it functions as a support means, does so by being captured between the catheter and a sheath. As can be seen in Figure 1A, for example, the walls of the groove are parallel and therefore the groove by itself does not retain the signal fiber. In contrast, the removable support means taught in the specification of the present application provide additional column support by removably attaching to the elongate shaft exterior surface in a manner which limits the radial movement of the support means with respect to the catheter without the use of an additional sheath. Therefore, the signal fiber of Furnish does not provide column support in substantially the same way as the removable support means of claim 1.

For at least the reasons stated above, the teachings of Furnish at least fail to teach "removable support means for providing column support to the elongate shaft" as currently claimed. Claim 1, as well as claims 2-7 which depend from claim 1 and include additional significant limitations, are believed to be in condition for allowance. Withdrawal of the rejection is respectfully requested.

Further, claim 2 recites "anchoring means for securing the removable support means." In the Office Action, it appears that alignment groove 124 is being equated to the anchoring means of claim 2. Applicants respectfully disagree with this suggestion of equivalence. In order to show equivalence, it must first be demonstrated that the alignment groove 124 of Furnish performs the same function as the claimed limitation. Applicants respectfully assert that the alignment groove 124 of Furnish does not meet the functional requirements of an "anchoring means for securing the removable support means."

According to Furnish, alignment grooves 124 are used to carry signal fibers 130. Furnish at column 10, line 5. At no point does Furnish suggest that alignment groove 124 performs the function of securing the removable support means. On the contrary, Furnish shows the signal fibers captured between the catheter and a sheath. The catheter grooves, which have parallel sides as can be seen in Figure 1A, are unable by themselves to secure the signal fibers. It can therefore be seen that the alignments grooves of Furnish do not perform substantially the same function as the anchoring means of claim 2. It is therefore unnecessary to perform the second step of the means-plus-function evaluation.

Further, claim 3 recites "wherein the anchoring means have a cross-sectional profile configured to permit the removable support means to move axially with respect to the elongate shaft while limiting relative radial movement." The Examiner argues that Furnish, in column 8,

lines 33-37, teaches such a configuration. However, Furnish merely teaches that each signal fiber "may be longitudinally displaceable within their respective alignment grooves." Furnish 8: 34-36. Furnish does not specifically say that the alignment grooves limit relative radial movement. To the contrary, Furnish teaches that "the housing has an outer peripheral surface having a plurality of spaced apart, *parallel*, longitudinally directed alignment grooves thereon." Furnish at column 1, lines 64-66 (italics added). As can be seen in Figure 1, for example, the sides of each alignment groove are parallel, and therefore the alignment grooves are unable to prevent the radial movement outwards of the signal fibers. An additional sheath, as shown in Figure 7, keeps the signal fibers in their alignment grooves.

For the reasons discussed above with respect to claim 1 and these additional reasons, Applicants respectfully submit that claims 2 and 3 and claims 4-7 which depend therefrom are in condition for allowance.

With respect to claim 9, claim 9 has been amended to incorporate the elements of claim 10 therein and currently recites "wherein each of the support tracks have a cross-sectional profile configured to permit each of the support ribs to move axially with respect to each support track while limiting relative radial movement. As discussed above with respect to claim 3, Furnish does not disclose a groove configuration having a cross-sectional profile configured to limit relative radial movement of the signal fiber. For at least this reason, Applicants respectfully submit that claim 9 is in condition for allowance. As claims 14-15, 18 and 21 depend therefrom and contain additional elements, Applicants submit that these claims are in condition for allowance as well. Claim 10 has been cancelled.

Claims 11-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Furnish in view of Rammler, U.S. Patent No. 5,327,891. Applicants respectfully traverse the rejection at least for the reason that all the claim elements are not taught or suggest by the cited prior art.

For example, claim 11 recites "wherein the cross-section profile comprises an ovoid cross-section." The Examiner argues that tracks 82 and 94 comprise an ovoid cross section. However these cross sections, which have four sharp corners, are not ovoid. Moreover, the elements 82 and 94 of Rammler, as can be seen in Figure 4, do not limit relative radial movement between, for example, element 82 and element 86. Element 82 is small enough that it can move in and out of the groove in element 86. It can therefore be seen that Furnish in view of Rammler does not disclose each and every element claimed in claim 11. For this reason, and for

the reason that claims 11-13 depend from claim 9 and contain additional elements, Applicants submit that these claims are in condition for allowance.

Claims 16-17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Furnish in view of MacDonald et al., U.S. Patent No. 6,210,396. Applicants respectfully traverse the rejection. The Examiner argues that "Furnish discloses the claimed invention except for explicitly disclosing attaching a portion of a catheter device by heat bonding or adhesives. MacDonald teaches attaching a portion of the catheter by using either heat bonding or adhesives." However, the Examiner previously argued that the plurality of tracks claimed in claim 9 were anticipated by the alignment grooves of Furnish; but claim 16, for example, recites "wherein the plurality of support grooves are heat bonded to the exterior surface of the elongate shaft." One cannot attach grooves to a catheter by heat bonding or adhesives because grooves are formed by removing material (or not applying material originally) and are not formed by adding material. Because grooves are not formed by heat bonding or by the use of adhesives, there is no reasonable chance of success and thus no *prima facie* case of obviousness has been made. For this reason, and for the reason that claims 16-17 depend from claim 9, which Applicants submit is allowable, and contain additional elements, Applicants submit that these claims are also in condition for allowance.

Claims 19-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Furnish in view of Rammler. Applicants respectfully traverse the rejection. The Examiner argues that "Furnish discloses the claimed invention except for explicitly disclosing the plurality of support ribs comprising a fluorinated polyethylene polymer and specifically polytetrafluoroethylene" and that Rammler supplies this deficiency. However, the signal fibers of Furnish, which the Examiner has held anticipates the claimed support ribs, must transmit energy and specifically light energy from one end to the other. If the substituted material does not effectively transmit light energy, the proposed modification would make the apparatus unsuitable for its intended use. Polytetrafluoroethylene is generally opaque, which suggests that it and other fluorinated polyethers would be unsuitable for use as the signal fibers of Furnish. For this reason, there is no motivation to combine the references and a *prima facie* case of obviousness has not been made. For this reason and for the reason that claims 19-20 depend from claim 9, which Applicants submit is allowable, and contain additional elements, Applicants submit that these claims are also in condition for allowance.

Reexamination and reconsideration are respectfully requested. It is submitted that all pending claims are currently in condition for allowance. Issuance of a Notice of Allowance in due course is anticipated. If a telephone conference might be of assistance, please contact the undersigned attorney at 612.677.9050.

Respectfully submitted,

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By their Attorney,

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